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ABSTRACT

This instructional guide is intended for use within inservice or continuing education programs for people who work in long-term care facilities. This module includes an overview of the normal functions of the small and large intestines and discusses the structures of the intestines, absorption in the intestines, and commonly occurring conditions that affect the intestinal tract. It also includes a discussion of medications that are prescribed for conditions of the intestinal tract, with attention to their usual use and common side effects. The lesson includes a drug chart that may be duplicated and a worksheet to be completed with the instructor. The lesson plan includes a goal and objectives and is illustrated with line drawings. A glossary and suggested resources complete the booklet. (KC)

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THE INTESTINAL TRACT: STRUCTURE, FUNCTION, DISORDERS AND RELATED MEDICATION

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Instructor Information

This material is intended for use within inservice or continuing education programs for people who work in long-term care facilities. This module includes an overview of the normal functions of the small and large intestines and discusses the structures of the small and large intestines, absorption in the intestines, and commonly occurring conditions which affect the intestinal tract. It also includes a discussion of medications which are prescribed for conditions of the intestinal tract. The drug charts may be duplicated for use as a teaching aid. The worksheet is to be completed with the instructor.

Suggested Resources

The following filmstrip is available on loan from Vocational Education Services:

Physiology of the Upper and Lower Gastrointestinal Tract

(AVO70043) Explains the physiology of the upper and lower gastrointestinal tract. Describes the mechanical and chemical changes that occur in food as it passes through the digestive tract. The roles of the stomach, pancreas, liver, and the gallbladder in this process are also explained.

The Intestinal Tract: Structure, Function, Disorders And Related Medication

Goal

The goal of this module is to familiarize health care workers with specific functions, disease processes, and medications related to the intestinal tract. Elderly patients that are frequently constipated may require medication or new bowel habits. Chronic conditions require treatment and emotional support.

Objectives

At the completion of this instructional material, the student will be able to:

- Identify and label the major structures of the small and large intestine including the duodenum, jejunum, ileum, appendix, ascending colon, transverse colon, descending colon, rectum and anal canal.
- Describe the functions of the intestines in order to explain to patients how to prevent constipation.
- Describe how absorption takes place in the villi of the small intestine.
- Report symptoms such as abdominal pain, diarrhea, bloody stools and distension to the charge nurse.
- Match intestinal signs and symptoms to the appropriate definition.
- List the four types of laxatives, with a specific example of each, used in the long term care facility.
- List four side effects of anticholinergic drugs used in the long-term care facility.
- List three antidiarrheal medications (one, Schedule III; I, Schedule V; one non-scheduled). Include with each of these information on side effects and special considerations.

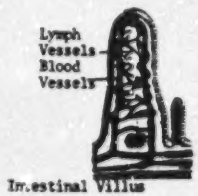
Structure and Function of the Small Intestine

The small intestine is about 21 feet long and is divided into three major sections. Those sections are the duodenum, jejunum, and ileum.

Digestion (the conversion of foods into simpler compounds) occurs primarily in the duodenum where contents move back and forth and become mixed with enzymes, bile, and mucin. Mucin (mucus) is a lubricant secreted by the small intestine.

Absorption occurs throughout the small intestine, but primarily in the jejunum. Tiny, fingerlike projections called villi line the walls of the intestine and create a large surface area for absorption. The villi contain a rich network of blood and lymph vessels which help absorb digested carbohydrates and proteins.

The ileum absorbs very little. The first two segments are more efficient and very small amounts of food which can be absorbed reach the ileum. Fifty percent (50%) of the small intestine can be removed without significantly interfering with absorption.



One layer of the small intestine is a smooth muscle. This muscle slowly squeezes food along the intestine wall so that the food can be absorbed. This slow movement is called peristalsis. If peristalsis is rapid and moves along the entire length of the intestine, diarrhea and poor absorption will result. Normally, it takes three hours after the stomach is emptied for the contents to reach the end of the small intestine.

The nerves which control the small intestine are relatively self-contained in the smooth muscle. There are three outside nervous influences, however, which can affect the intestines. First, a gastrocolic response, which is a strong intestinal movement, can occur following consumption of a large meal. Second, external influences can cause a decrease of intestinal motor activity. Third, abdominal surgery (especially if the small intestine has been handled extensively) can cause a prolonged decrease of intestinal movements. This is called paralytic ileus.

The small intestine absorbs anything that is absorbable. Obesity is usually caused by overeating rather than by an absorption disorder.

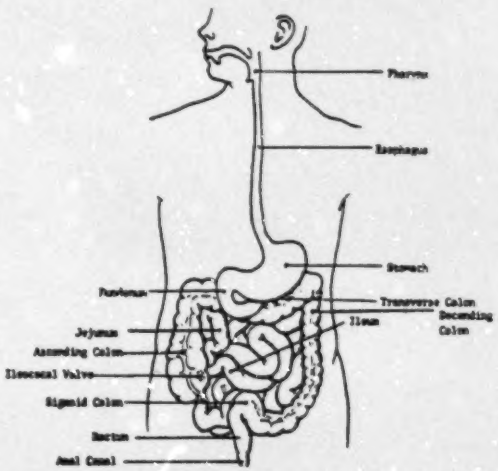
About eight quarts of water enter the small intestine every day. Of that water, one quart is taken orally and the other seven are secreted by the gastrointestinal system. Most of that water is absorbed in the small intestine. Only $^1/_4$ or $^1/_2$ quart reaches the large intestine.

Structure and Function of the Large Intestine

The large intestine is four and a half to five feet long and two and a half inches in diameter. The first portion of the large intestine, the cecum, is about three inches long. The appendix is located at the smallest end of the cecum.

The next section of the large intestine is the colon, which is divided into three smaller sections. The ascending colon is located on the right side of the abdomen, upward to the liver. The transverse colon, which is the largest section of the colon, crosses the abdomen to the left. The descending colon is downward on the left side.

The *sigmoid* colon is "S-shaped," finally ending in the rectum. The *rectum* is five to seven inches long and ends in the *anal canal.* The anal canal consists of the *internal anal sphincter* which is composed of involuntary, smooth muscles and the *external anal sphincter* which is composed of voluntary, skeletal muscles. Many veins are present in the lining of the rectum. When these veins become large and congested, *hemorrhoids* are present.



Since most of the valuable food products are digested and absorbed in the small intestine, all that remains of the food are waste products that are of no further use to the body. The large intestine is responsible for eliminating the material that the body cannot use.

As undigested material passes through the smooth muscles of the large intestine, water and electrolytes (electrically charged chemicals in the blood) are absorbed through the walls of the large intestine. The lining of the colon secretes mucus, which acts as a lubricant to help the undigested material pass through the large intestine.

A firm stool is formed when water is absorbed from the undigested material. This stool is then stored until defecation. Defecation consists of bacteria, cells shed from the intestinal lining, and material that cannot be digested. Three to four times per day, a massive contraction pushes

the stool to the end of the large intestine, which then triggers the defecation reflex.

The defecation reflex is a number of coordinated muscular movements which remove the stool to the outside of the body. These muscular movements include the contraction of the smooth muscle in the rectum, the relaxation of the internal and external sphincters, and voluntary straining movements.

The defecation reflex can be triggered by the gastrocolic reflex which occurs following meals. When food enters the stomach, a massive contraction of the large intestine causes the end of the colon to become full, and the normally empty rectum is distended. This distended rectum causes the desire to defecate.

Since the external anal sphincter is a voluntary muscle, it is under voluntary control. If a person decides to postpone defecation, this muscle can be tightened and the rectum will relax. The desire to defecate then disappears until more stool enters the rectum and distends it again. Delaying a stool often results in constipation.

Normal bowel habits vary a lot, ranging from several times per day for some individuals to once a week for other individuals. When the normal interval for a specific individual is prolonged, symptoms of constipation may develop. These symptoms can include abdominal discomfort, headache, nausea, and lack of appetite related to distension of the large bowel.

Constipation occurs in at least 25 percent of the elderly. It was previously thought that toxins (poisons) in the intestine were absorbed, causing symptoms associated with constipation (abdominal pain, headache, dullness, and bloating). It has been proven, however, that these symptoms of constipation are caused by the distension and irritation of the colon, rather than by auto-intoxication (absorption of poisons from intestinal contents).

Factors which can lead to constipation include:

1. the postponement of the defecation reflex
2. a decrease in physical activity
3. a decrease in muscle activity in the large intestine
4. a prolonged period of bed rest
5. a diet lacking in bulk and fluids
6. hemorrhoids or other conditions which cause pain in the area
7. the abuse of laxatives
8. the use of medications such as sedatives, antihypertensives, narcotics, or calcium carbonate antacids

When constipation occurs, oral or rectal medications and enemas may be

ordered to induce defecation. An alternative to these treatments can be the establishment of new, healthier bowel habits. In the elderly, however, some consider it harmful to introduce new bowel habits as this can disturb the elderly's peace of mind and body. Sometimes the patients' condition prohibits a change in diet that might correct unhealthy bowel habits.

Some intestinal disorders prevent an increase in dietary bulk. Loss of teeth can also hinder an increase in fresh fruits and vegetables. In such cases, a physician might prescribe a laxative for regular use if the laxative does not cause the patient to experience gripping or gaseous distension.

There are a number of non-medical treatments to relieve constipation and establish healthy bowel habits. Sleep is important to all body functions and will help bowel functions. Exercise of any type, even walking or passive exercises, would help increase muscle tone.

Establishing a routine for regular bowel habits can also help relieve constipation. A schedule of times during the day to set aside for regular bathroom habits is often helpful. It is important to schedule the routine so that it does not interfere with other activities, as repeatedly delaying the urge to stool can cause permanent changes in the bowels.

Diet can also be an effective treatment for constipation. Drinking large quantities of water help keep stools soft, and drinking eight to twelve ounces of ice water in the mornings frequently starts the gastrocolic reflex.

An increase in the amount of bulk in the patient's diet can help treat constipation if the patient can tolerate bulk. Bran, whole grain cereals and breads, oatmeal, rolled oats, bran flakes, granola, shredded wheat, and brown rice are good sources of bulk. High fiber foods, such as raw or stewed fruits and vegetables are also helpful. It should be noted, however, that fatty foods should be eaten in moderation because they can cause diarrhea.

In addition, informing patients that a daily bowel movement is not necessarily normal for every individual can reduce anxiety about less frequent stools. These changes in diet and daily activities can frequently correct constipation, but it is also important that the health care worker practice patience and understanding when working with these residents.

Common Conditions of the Intestinal Tract Which Require Diagnosis, Treatment and Medications

At times the intestine may become blocked. Obstructions are fairly common in the elderly. The two most common types of blockage are small

intestine obstruction, and paralytic ileus. Small intestine obstruction is most frequently caused by scarring from previous abdominal surgery. Paralytic ileus can be caused by drugs (narcotics, anticholinergics, and ganglionic blocking agents). Symptoms for either type of blockage include abdominal pain, full and tight abdomen, vomiting, and constipation.

Diarrhea is an increase in stools that are semi-solid or liquid. This condition usually occurs when the muscles of the small intestine contract too quickly. An irritation of the small intestine by germs may cause a rapid emptying into the large intestine. The large intestine cannot absorb as much water as the small intestine can, and diarrhea results. Diarrhea quickly causes dehydration and chemical changes in the blood.

Another common type of intestinal disorder among the elderly is an irritable colon. Symptoms include constipation or diarrhea, gaseous distension, cramping, excessive mucus in the stools, heartburn, nausea, abdominal fullness, fatigue, and the "blahs." Many problems of the elderly that contribute to irritable colon include the use of laxatives and enemas and emotional difficulties like depression, boredom, isolation, neglect, sense of inadequacy or uselessness, and fear of cancer. The treatment of the patients with an irritable colon should be positive and encouraging. Diet changes and rest will be recommended. The medications used in the treatment of irritable colon include sedatives, anticholinergies, and antidepressants.

Another type of intestinal disorder, fecal incontinence, is found in confused patients or those with neurologic problems (paralysis). In these patients, a smaller amount in the rectum triggers the defecation reflex. The muscle tone of the rectum and anus is poor. Fecal impactions (collections of hardened feces in the rectum) may lead to uncontrolled passage of liquid stools around the impaction. Some nervous disorders can cause a change in the normal steps in stooling. For example, a patient may urinate or stool as soon as the bedpan is removed. In this case, the patient's nerves are sending the wrong message to the brain. A solution might be to change the patient's bed later in the day and place a Chux® pad underneath the patient after the bedpan is removed.

A very common disorder in patients over 70 is diverticulosis. Diverticulosis occurs when the lining of the bowel, mucosa, herniates through the weakest points in the bowel wall. Symptoms of diverticulosis resemble those of the irritable colon. Treatment includes the avoidance of bowel irritants, an occasional use of mild sedatives and antispasmodics like phenobarbital and belladonna, and the normal treatment of constipation by controlling diet, fluids, and bulk.

Diverticulitis results from a break of a single pouch in the bowel, and causes surrounding irritation. The treatment for diverticulitis includes

rest, a liquid diet, absorbable antibiotics, and mild antispasmodics. If hospitalized, the patient will have orders which include nothing by mouth, intravenous fluids, antibiotics, and meperidine (Demerol) rather than morphine to be given for pain.

Approximately ten percent of patients over 65 suffer from ulcerative colitis. The cause of ulcerative colitis is not known, but symptoms include bloody diarrhea, weight loss, abdominal cramping, and a low grade fever. Some patients develop an acute illness with large blood loss, permanent distension of the bowel, and rupture of the bowel. The treatment for ulcerative colitis includes the elimination of raw fruits and vegetables, alcohol, and milk. Antispasmodics and antidiarrheal agents may be given. Care should be taken, however, because the patients may be overly sensitive to these agents. Antibacterial agents like sulfathalidine and salicylazo-sulfapyridine may be used for patients with acute illness to maintain health. Corticosteroids are helpful to control inflammation and help cause a sense of well-being.

Rectal bleeding is a very important symptom in the elderly. It should be reported immediately as the bleeding can indicate a life-threatening condition. The bleeding can be caused by a number of factors including hemorrhoids, colonic diverticula, diverticulosis (which may have massive bleeding), and polyps or carcinoma (which may have streaks of blood in the stool). When rectal blood is present, either hidden or visible, further examination is necessary.

Care of individuals with intestinal difficulties may be simple or complex but it always requires patience and understanding. The health care workers should have a thorough understanding of the intestinal system in order to effectively teach the patient about the importance of good bowel habits, diet, and exercise. Some understanding of the pathological changes allow the health care worker to answer patients' questions concerning the bowels.

All laxatives should be avoided with abdominal pain, nausea, vomiting (symptoms of appendicitis).
Laxatives do not significantly interact with other drugs.
Intended time of stool is given so medication can be timed to not interfere with other activities (i.e. sleep).

LAXATIVES

BULK LAXATIVES

Action: Increase the frequency of stools and soften by holding water in the stool

Drug	Intended Action	Side Effects	Remember
BULK LAXATIVES IN GENERAL	Stool produced between 12 and 72 hours.	May cause obstruction without adequate water.	Should be taken with a full glass of water. Safest type of laxative. Frequently bran or dried fruit (prunes and figs) have the same effect.
agar, U.P.S.	Same as above.	Same as above.	Plenty of fluid. May be added to soft food after soaking in hot water (roup, cereal, potatoes, pudding).
psyllium seed Metamucil	Promotes the formation of a soft, water-retaining gelatinous residue in the lower bowel. Demulcent effect on inflamed mucosa, stool formed in 12 hours to 3 days.	Nausea, vomiting, diarrhea, esophageal, gastric, small intestinal or colonic stricture if taken dry, cramping.	Stir into fluid. Give additional glass of water after given; instant mix contains large amount of salt, give immediately after mixing to avoid congealing.
methylcellulose U.P.S. Cologel, Hydrolose	Stool formed in 12 hours to 3 days.	Nausea and vomiting, diarrhea, G. I. stricture if taken dry.	In water swells to form gel, short term treatment.

LUBRICANT OR EMOLLIENT CATHARTICS

Action: Softens the fecal mass and prevents excessive absorption of water. Does not increase bulk.

Drug	Intended Action	Side Effect	Remember
lubricant or emollient cathartics IN GENERAL	Stool produced in 12 to 18 hours.	Dissolves certain bile salts and fat-soluble vitamins and inhibits absorption of same. Large doses may seep from rectum causing irritation.	Useful when it is necessary to keep feces soft or when straining is to be avoided (after surgical repair of rectum, hernias or cerebral vascular accidents).
mineral oil U.S.P.	Same as above.	Nausea and vomiting, diarrhea, abdominal cramps, decreased absorption of fat-soluble vitamins.	Administer with orange or orange juice to relieve oily taste. Give between meals.
olive oil U.S.P. corn oil U.S.P. cottonseed oil U.S.P.	Same as above.		Although usually digestible if given in quantity, will act as emollient cathartic.

SALINE CATHARTICS

Action: Hold water in the intestinal tract and cause more water to be absorbed into the tract from other tissues (high osmotic pressure).

Drug	Intended Action	Side Effect	Remember
Saline Cathartics IN GENERAL	Produce stool in 1 to 4 hours with considerable gripping.	When used to reduce edema, can exhaust patient.	Rapid evacuation is produced (as needed with food poisoning). May be used to reduce edema. Some saline cathartic will absorb into circulation and is excreted through the kidney (saline diuretic).
magnesium hydroxide magma U.S.P. milk of magnesia U.S.P. magnesium citrate		Abdominal cramping, nausea, laxative dependence.	Shake suspension well. Administer with large amounts of water. Don't give oral drugs 1 to 2 hours before or after.

STIMULANT LAXATIVES

Action: Increase peristalsis in the colon by irritating sensory nerve endings in the mucosa.

Drug	Intended Action	Side Effect	Remember
bisacodyl Ducolax Biscolax	Acts in 6-12 hours after oral administration. Acts in 15-60 minutes after rectal administration.	Muscle weakness in excessive use, nausea, abdominal cramps, diarrhea, burning sensation in rectum with suppositories, alkalosis, hypokalemia.	Tell patient to swallow enteric-coated tablet whole to avoid G. I. irritation. Don't give with milk or antacids.
danthron Modane Dorbane Weslax	Complete evacuation of bowel in 6 to 24 hours.	Nausea and vomiting, diarrhea, loss of normal bowel function, abdominal cramps, cathartic colon (symptoms of ulcerative colitis), hypokalemia.	Mask taste with fruit juice, give on empty stomach.
castor oil Alphamul Neoloid	Complete evacuation after 3 hours.	Same as above, pelvic congestion in menstruating women.	Do not administer to menstruating women, give with juice, have patient hold ice in mouth before taking, shake well.
cascara sagrada Cas-Evac		Same as above.	Same as above.

STOOL SOFTENERS

Drug	Intended Action	Side Effect	Remember
docusate calcium (dioctyl calcium) Surfak **docusate sodium** Colace	Produce firm, semisolid stool in 24-28 hours.	Throat irritation, bitter taste, diarrhea.	High salt content, give in milk or juice to mask taste, *prevents* constipation, teach patient about dietary bulk.

ANTIDIARRHEAL

***Antiperistalic agents should not be used for diarrhea associated with pseudomembranous entercolitis, diarrhea caused by toxigenic bacteria.**

Usually should not be administered more than 2 days.

Name	Side Effects	Interact With	To Produce	Remember
bismuth subsalicylate Pepto-Bismol	Temporary darkening of tongue and stools.			Warn patient that this drug contains a large amount of salicylate if sensitive to aspirin or taking large amount of aspirin check with charge nurse.
diphenoxylate hydrochloride controlled substance Lomotil Lofio, Lomo-Plus	Sedation, dizziness, respiratory depression, flushing, hyperthermia, tachycardia followed by lethargy/coma, may prolong/aggravate diarrhea associated with organisms that penetrate intestinal muscosa or pseudomembranous colitis.	CNS depressants (barbiturates, tranquilizers and alcohol). MAO inhibitors.	Potentiate depressants hypertensive crisis.	*Do not exceed prescribed dosage, avoid mixing with alcohol and other depressants, may cause dry mouth, risk of physical dependence, dehydration (from diarrhea) may increase toxicity, contact charge nurse if *fever* or *palpitations* occur.
kaolin-pectin mixture Kaopectate Kapectin, Pecto-Kalin	Absorbs nutrients and enzymes; fecal impaction or ulceration in infants, elderly and debilitated patients, constipation.	Most oral drugs.	Reduce absorption of some oral drugs.	Don't use for more than 2 days, G. I. absorbent.

Name	Side Effects	Interact With	To Produce	Remember
loperamide HCl Imodium (Schedule V)	May prolong/aggravate diarrhea associated with organisms that penetrate intestinal mucosa or pseudomembranous colitis, abdominal pain, distension or discomfort, constipation drowsiness, dizziness.			Don't use for over 2 days if acute diarrhea. Do not exceed prescribed dosage. 3 times more potent than diphenoxylate HCl.
loperamide HCl Imodium (Schedule V)	Dry mouth, nausea, vomiting, tiredness, hypersensitivity (includes rash).			
opium tincture, camphorated Paregoric (Schedule III)	Nausea and vomiting, physical dependence after long term use.			Use cautiously in severe prostatic hypertrophy, hepatic disease, narcotic dependence, effective and prompt-acting; opium content of opium tincture 25 × greater than camphorated tincture of opium.

GASTROINTESTINAL ANTICHOLINERGICS

ACTION: Adjunct therapy for pain of peptic ulcers. Also used to treat irritable colon and neurogenic colon. Used to decrease motility (smooth muscle tone) in the gastrointestinal, biliary and urinary tracts and for their antisecretory effects.

Response is dose related—small doses inhibit salivary and bronchial secretions and sweating; larger doses dilate pupils and increase heart rate, larger doses decrease motility, very large doses inhibit gastric acid secretions.

Drug	Side Effects**	Interact With	To Produce	Remember
methantheline bromide Banthine	Confusion or excitement in elderly.	Antihistamines, meperidine, tranquilizers, antidepressants.	More severe side effects because these drugs have secondary anticholinergic activity.	Caution in hot or humid environment, may cause heatstroke.
propantheline bromide Pro-Banthine Robantaline **tridihexethyl chloride** Pathilon	Headache, insomnia, palpitations, blurred vision, increased ocular tension, dry mouth, vomiting, paralytic ileus.	Nitrates, nitrites, alkalinizing agents.	Also potentiate side effects.	Give 30 minutes to one hour before meals, bedtime dose at least 2 hours after meal, *elderly* are sensitive to effects.
belladonna leaf **belladonna tincture** U.S.P.	Urinary hesitancy and retention, urticaria, decreased sweating, overdose.	Monoamine oxidase inhibitors.	Block detoxification, therefore, potentiating effects.	Check vital signs and output regularly. Offer fluids regularly.
Belladonna Fluidextract	May cause curare-like symptoms.	Corticosteroids or haloperidol.	Increase interocular pressure.	Gum or sugarless hard candy may help relieve mouth dryness.
		Cholinesterase inhibitors.	Antagonize action of these.	Toxic levels can be reached quickly, notify charge nurse of side effect symptoms.

Drug	Side Effects**	Interact With	To Produce	Remember
		Guanethidine, histamine and reserpine.	Antagonize inhibition of gastric acid secretion.	
		Antacids.	Interfere with absorption.	
		Sympathomimetics.	Enhance bronchial relaxation.	

**Side effects common in elderly or debilitated, some side effects are life threatening.

GLOSSARY

1. Acidosis—an abnormal state of high acidity in the blood, a dangerous condition.
2. Auto-intoxication—absorption of poisons from the contents of the intestinal tract when defecation is delayed.
3. Contract (contraction)—to pull together, to shorten, the shortening and, usually, thickening of a muscle.
4. Distend (distension)—to enlarge from internal pressure, to swell, to become expanded, to become bloated.
5. Electrolytes—electrically charged chemicals in the blood.
6. Gastrocolic Response—the mass contraction of the colon after a large meal is eaten, usually results in the urge to defecate.
7. Herniate—a protrusion of tissue or a loop of an organ through an abnormal opening.
8. Impaction—a collection of putty-like or hardened feces in the rectum.
9. Incontinence—inability of the body to control stool or urine evacuation.
10. Involuntary Muscles (smooth)—muscles which are independent of voluntary control and movement.
11. Mucin—mucus.
12. Paralytic Ileus—an obstruction of the intestine caused by lack of muscle activity.
13. Peristalsis—wormlike muscle contractions which squeeze intestinal contents along it's length.
14. Voluntary Muscles (skeletal)—muscles which are controlled at will.

Worksheet

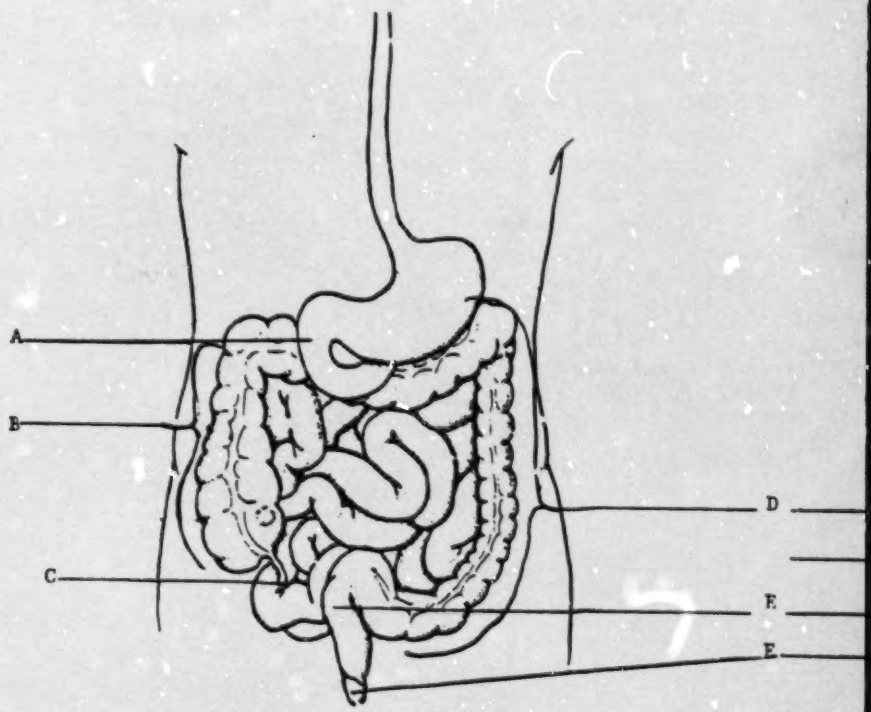
Answer the following questions:

1. Label this diagram

   a. _____

   b. _____ _____

   c. _____



2. You are assigned Mr. Slow in Room 101 for morning care. Mr. Slow had been using laxatives at home prior to his admission two weeks ago. The doctor has written an order for milk of magnesia 30 cc. h.s. prn for severe constipation. The charge nurse tells you after report that Mr. Slow has had problems with diarrhea, cramping and dehydration. The charge nurse asks you to teach Mr. Slow about alternatives to laxatives.

   a. What would you tell Mr. Slow?

   b. What activities would you encourage Mr. Slow to do?

c. What foods would you encourage him to eat?

3. While caring for Mr. Slow you assist him to the bathroom to have a bowel movement. While he is in the bathroom you hear him moaning. You quickly assist him back to bed and go back to the bathroom for supplies to complete his bath. You observe blood in the stool and on the floor. What would you do?

4. Fill in the blank.

   The _____ greatly increase the surface area of the small intestine; absorption occurs through these.

5. Matching

   a. Gastrocolic Reflex ____
   b. Small intestine obstruction ____
   c. Diarrhea ____
   d. Constipation ____
   e. Diverticulosis ____
   f. Rectal bleeding ____

   1. Frequent defecations, usually semi-solid or liquid
   2. Lining of bowel pouches through bowel wall, resembles irritable colon.
   3. Caused by scarring from previous abdominal surgery.
   4. Occurs in 25% of the elderly, can lead to impaction.
   5. Massive contraction of large intestine after large meal.
   6. Cause may be hemorrhoids or cancer, can be life threatening.

6. List the four types of laxatives and an example of each used in your facility:

TYPE	*EXAMPLE*
a. _____	a. _____
b. _____	b. _____
c. _____	c. _____
d. _____	d. _____

7. List two examples of anticholinergic drugs in your facility and four side effects of each.

DRUG	*SIDE EFFECT*
a. _____	1. _____
	2. _____
	3. _____
	4. _____
b. _____	1. _____
	2. _____
	3. _____
	4. _____

8. Complete the following grid regarding antidiarrheal medication.

Drug Name	**Side Effects**	**Special Considerations**
Non Scheduled 1A _____	1B.	1C.
Schedule III 2A _____	2B.	2C.
Schedule V 3A _____	3B.	3C.

Resources

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